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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/665,044

09/22/2003

Tae Seung Kim

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49455

7590

06/28/2005

STEIN, MCEWEN & BUI, LLP  
1400 EYE STREET, NW  
SUITE 300  
WASHINGTON, DC 20005

EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/665,044

Applicant(s)

KIM, TAE SEUNG

Examiner

Elizabeth Keaney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,12,13,17,21,22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 2-11,15,16,18,19,23,27 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/22/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

Claims 7 and 8 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 4 and 5. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Double Patenting***

Claims 1,12,13,17,21,22,24,25 and 26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,2,19,20,29 and 31 of copending Application No. 10/624597 in view of Yamazaki (US Patent 6,433,487).

Re claims 1,17,21,22,24,25 and 26: Application No. 10/624597 claims all the limitations of the present application except for the flexible printed cable.

Yamazaki discloses the use of a flexible printed cable within an EL display device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the FPC of Yamazaki within the device disclosed by Application 10/624597 because it provides power for operation of the device and allows for a more flexible connection between the power source and the device.

Re claims 12 and 13: Application No. 10/624597 and Yamazaki claim all the limitations of the present application except for the main and sub substrate scan lines grouped at a first side of the substrate and the data lines arranged at a second side of the substrate.

One of ordinary skill in the art at the time the invention was made would recognize the need to separate the scan lines from the data lines.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the electrodes with the scan lines grouped at a first side of the substrate and the data lines arranged at a second side of the substrate within the device taught by Application No. 10/624597 and Yamazaki because it maximizes emission energy while preventing shorts between the electrodes.

Re claims 14 and 20: Application No. 10/624597 and Yamazaki claim all the limitations as shown above including a conductive spacer.

However, they fail to teach the material the conductive spacer is produced from.

Miyazaki et al. (US Patent 6,879,096) discloses a conductive spacer comprising an anisotropic conductive material which is electrified vertically and insulated horizontally (column 34, lines 19-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a conductive spacer comprising the material of Miyazaki within the device taught by 10/624597 and Yamazaki because it provides adequate conductive properties while maintaining an antistatic environment within the device.

This is a provisional obviousness-type double patenting rejection.

***Allowable Subject Matter***

Claims 2-11,15,16,18,19,23,27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Re claims 2-11: The best prior art of record teaches most of the features in claim 2 as shown above. However, The prior art of record fails to teach or fairly suggest the sealant interposed between the main and sub substrate scan lines and between the main and sub substrate data lines, as claimed in claim 2. Claims 3-11 would be allowable by virtue of their dependency.

Re claims 15 and 16: The best prior art of record teaches most of the features in claims 15 and 16 as shown above. However, The prior art of record fails to teach or fairly suggest the main substrate data and scan lines and the sub substrate data and scan lines are electrically connected to each other by the conductive spacer, and are

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connected to the FPC by applying an identical data and scan line drive signal to the data and scan lines as claimed in claims 15 and 16.

Re claims 18 and 19: The best prior art of record teaches most of the features in claim 18 as shown above. However, The prior art of record fails to teach or fairly suggest the floating electrode lines being independently arranged at the first side of the main or sub substrate electrode lines, as claimed in claim 18. Claim 19 is allowable by virtue of its dependency.

Re claim 23: The best prior art of record teaches most of the features in claim 23 as shown above. However, The prior art of record fails to teach or fairly suggest the conductive spacer interposed between each of the main and sub substrate scan lines and/or the main and sub substrate data lines, forming the electrical connection therebetween, as claimed in claim 23.

Re claims 27 and 28: The best prior art of record teaches most of the features in claim 27 as shown above. However, The prior art of record fails to teach or fairly suggest a conductive spacer in the sealing unit, wherein a plurality of the electrode lines of each device are electrically connected to each other through the conductive spacer, as claimed in claim 27. Claim 28 is allowable by virtue of its dependency.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- JP 2000-100560 discloses a dual-type EL device wherein the electrodes on both the main and sub electrodes are plate electrodes thereby forming a monochromatic display rather than the main and sub displays having scan and data lines forming a pixel-type display.
- US Patent Application Publication 2003/0227254 discloses a dual-type EL device wherein the main and sub EL devices are not hermetically sealed facing each other.
- US Patent Application Publication 2004/0036412 discloses a dual-type EL device comprising two cathodes, one anode, one substrate and two organic EL layers.
- US Patent 6,548,956 discloses a dual-type EL device wherein the main and sub EL devices are not hermetically sealed facing each other.
- US Patent 5,416,494 discloses a dual-type EL device wherein the main and the sub device share a single substrate.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday-Thursday 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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EDWARD J. GLICK  
SUPERVISORY PATENT EXAMINER